

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-20. (Canceled)

21. (Currently Amended) A method for adding a connection between pieces of equipment in a design of an equipment-based system, the pieces of equipment each having a model and containing one or more ports, the method comprising:

comparing port detail, payload, protocol, signal types, and cabling requirements in the model for the ports each of the pieces of equipment;

indicating the connection is not valid if ports ~~at end points of each of the pieces of equipment~~ are not available for connection;

indicating the connection is ~~not~~ valid if a fixed connection rule is ~~not~~ available for the connection of said ports of said pieces of equipment~~and payload carried by both of said end points is not compatible~~;

indicating the connection is not valid if said a fixed connection rule is not available for the connection, protocol and signal type carried by both of said endpoints are is not compatible, and a converter is not available to bridge the gap between said incompatible protocol and/or signal types;

indicating the connection is not valid if ~~a fixed connection rule is not available for the connection~~, the medium at the end-points is not compatible, and a converter is not available to bridge the gap between said incompatible media; and

indicating the connection is not valid if the connection is listed in a compatibility issues table and no resolution code is listed which can be executed.

22. (Canceled)

23. (Currently Amended) A method for selecting a cable to connect two or more pieces of equipment in a design of an equipment-based system, the method comprising:

isolating all cables of a common cable type specified at each port of the pieces of equipment;

indicating no cable is available if no cables match said common cable type;

isolating all cables with connectors that mate with ones specified at each port of the pieces of equipment;

indicating no cable is available if no cables have connectors that mate with the ones specified at each port of the pieces of equipment and no port adapter is available for either piece of equipment;

isolate isolating all cables with diameters within a minimum and maximum value of a composite cabling specification;

indicating no cable is available if no cables are available with diameters within said minimum and maximum value of the composite cabling specification;

determining if a preferred cable manufacturer is specified;

isolating all cables made by the preferred cable manufacturer if one is specified; and

displaying all cable choices to a user for selection if more than one cable is still available.

24-47. (Canceled)

48. (Currently Amended) An apparatus for adding a connection between pieces of equipment in a design of an equipment-based system, the pieces of equipment each having a model and containing one or more ports, the method comprising:

means for comparing port detail, payload, protocol, signal types, and cabling requirements in the model for the ports ~~each~~ of the pieces of equipment;

means for indicating the connection is not valid if ports ~~at end points of each of the pieces of equipment~~ are not available for connection;

means for indicating the connection is ~~not~~ valid if a fixed connection rule is ~~not~~ available for the connection of said ports of said pieces of equipment ~~and payload carried by both of said end points is not compatible~~;

means for indicating the connection is not valid if said a fixed connection rule is not available for the connection, protocol and signal type carried by both of said endpoints are ~~is~~ not compatible, and a converter is not available to bridge the gap between said incompatible protocol and/or signal types;

means for indicating the connection is not valid if ~~a fixed connection rule is not available for the connection~~, the medium at the end-points is not compatible, and a converter is not available to bridge the gap between said incompatible media; and

means for indicating the connection is not valid if the connection is listed in a compatibility issues table and no resolution code is listed which can be executed.

49. (Canceled)

50. (Currently Amended) An apparatus for selecting a cable to connect two or more pieces of equipment in a design of an equipment-based system, the method comprising:

means for isolating all cables of a common cable type specified at each port of the pieces of equipment;

means for indicating no cable is available if no cables match said common cable type;

means for isolating all cables with connectors that mate with ones specified at each port of the pieces of equipment;

means for indicating no cable is available if no cables have connectors that mate with the ones specified at each port of the pieces of equipment and no port adapter is available ~~for either piece of equipment~~;

means for ~~isolate~~ isolating all cables with diameters within a minimum and maximum value of a composite cabling specification;

means for indicating no cable is available if no cables are available with diameters within said minimum and maximum value of the composite cabling specification;

means for determining if a preferred cable manufacturer is specified;

means for isolating all cables made by the preferred cable manufacturer if one is specified; and

means for displaying all cable choices to a user for selection if more than one cable is still available.

51 -53. (Canceled)

54. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for adding a connection between pieces of equipment in a design of an equipment-based system, the pieces of equipment each having a model and containing one or more ports, the method comprising:

comparing port detail, payload, protocol, signal types, and cabling requirements in the model for the ports each of the pieces of equipment;

indicating the connection is not valid if ports ~~at end points of each of the pieces of equipment~~ are not available for connection;

indicating the connection is ~~not~~ valid if a fixed connection rule is ~~not~~ available for the connection of said ports of said pieces of equipment and payload carried by both of ~~said end points is not compatible~~;

indicating the connection is not valid if said a fixed connection rule is not available for the connection, protocol and signal type carried by both of said endpoints are is not compatible, and a converter is not available to bridge the gap between said incompatible protocol and/or signal types;

indicating the connection is not valid if ~~a fixed connection rule is not available for the connection~~, the medium at the end-points is not compatible, and a converter is not available to bridge the gap between said incompatible media; and

indicating the connection is not valid if the connection is listed in a compatibility issues table and no resolution code is listed which can be executed.

55. (Canceled)

56. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for selecting a cable to connect two or more pieces of equipment in a design of an equipment-based system, the method comprising:

isолating all cables of a common cable type specified at each port of the pieces of equipment;

indicating no cable is available if no cables match said common cable type;

isолating all cables with connectors that mate with ones specified at each port of the pieces of equipment;

indicating no cable is available if no cables have connectors that mate with the ones specified at each port of the pieces of equipment and no port adapter is available for either piece of equipment;

isolate isolating all cables with diameters within a minimum and maximum value of a composite cabling specification;

indicating no cable is available if no cables are available with diameters within said minimum and maximum value of the composite cabling specification;

determining if a preferred cable manufacturer is specified;

isolating all cables made by the preferred cable manufacturer if one is specified; and

displaying all cable choices to a user for selection if more than one cable is still available.

57. (Newly Added) A method for selecting a cable to connect two or more pieces of equipment in a design of an equipment-based system, the method comprising:

isolating all cables of a common cable type specified at each port of the pieces of equipment;

indicating no cable is available if no cables match said common cable type;

isolating all cables with connectors that mate with ones specified at each port of the pieces of equipment;

indicating no cable is available if no cables have connectors that mate with the ones specified at each port of the pieces of equipment and no port adapter is available;

isolating all cables within a minimum and maximum value of a composite cabling specification;

indicating no cable is available if no cables are available with diameters within said minimum and maximum value of the composite cabling specification;

isolating all cables made by the manufacturers of said equipment pieces; and

displaying all cable choices to a user for selection if more than one cable is still available.

58. (Newly Added) An apparatus for selecting a cable to connect two or more pieces of equipment in a design of an equipment-based system, the apparatus comprising:

means for isolating all cables of a common cable type specified at each port of the pieces of equipment;

means for indicating no cable is available if no cables match said common cable type;

means for isolating all cables with connectors that mate with ones specified at each port of the pieces of equipment;

means for indicating no cable is available if no cables have connectors that mate with the ones specified at each port of the pieces of equipment and no port adapter is available;

means for isolating all cables within a minimum and maximum value of a composite cabling specification;

means for indicating no cable is available if no cables are available with diameters within said minimum and maximum value of the composite cabling specification;

means for isolating all cables made by the manufacturers of said equipment pieces; and

means for displaying all cable choices to a user for selection if more than one cable is still available.

59. (Newly Added) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for selecting a cable to connect two or more pieces of equipment in a design of an equipment-based system, the method comprising:

isolating all cables of a common cable type specified at each port of the pieces of equipment;

indicating no cable is available if no cables match said common cable type;

isolating all cables with connectors that mate with ones specified at each port of the pieces of equipment;

indicating no cable is available if no cables have connectors that mate with the ones specified at each port of the pieces of equipment and no port adapter is available;

isolating all cables within a minimum and maximum value of a composite cabling specification;

indicating no cable is available if no cables are available with diameters within said minimum and maximum value of the composite cabling specification;

isolating all cables made by the manufacturers of said equipment pieces; and  
displaying all cable choices to a user for selection if more than one cable is still available.